

**Supplementary Table 1.** Patients with oropharyngeal squamous cell carcinoma and their tumour characteristics, treated with the intention to cure with oncological treatment separated in patients with available and not available pre-treatment biopsies.

Patient characteristics			OSCC patients <i>with</i> pre-treatment biopsies (N=439)		OSCC patients <i>without</i> pre-treatment biopsies (N=45)		All identified OSCC patients, treated with the intention to cure (N=484)		p value	
			N		N		N			
			%		%		%			
Age	Mean (years)		61		61		61		ns	
	Median (years)		60		61		60			
	Range (years)		30-90		40-93		30-93			
	Inter-quartile range (years)		54-67		53-69		54-68			
Diagnosis	malignant neoplasm of the base of tongue (C01.9)		103	24%	9	20%	112	23%	ns	
	malignant neoplasm of the palate (C05.0-9)		22	5.0%	1	2.7%	23	4.8%		
	malignant neoplasm of the tonsil (C09.0-9)		283	65%	32	71%	315	65%		
	malignant neoplasm of the oropharynx (C10.0-9)		31	7.1%	3	6.7%	34	7.0%		
Sex	female		119	27%	11	24%	130	27%	ns	
	male		320	73%	34	76%	354	73%		
Tumour	size	T1	94	21%	13	29%	107	22%	ns	
		T2	153	35%	14	31%	167	35%		
		T3	97	22%	7	16%	104	21%		
		T4	95	22%	11	24%	106	22%		
Nodal	disease	N0	103	23%	11	24%	114	24%	ns	
		N1	87	20%	9	20%	96	20%		
		N2a	60	14%	7	16%	67	14%		
		N2b	117	27%	11	24%	128	26%		
		N2c	51	12%	5	11%	56	12%		
		N3	18	4.1%	2	4.4%	20	4.0%		
Distant metastasis		NX	3	0.68%	0	0%	3	1.0%	ns	
		M0	429	98%	44	98%	473	98%		
		M1	3	0.68%	0	0%	3	1.0%		
Tumour	Stage	MX	7	1.6%	1	2.2%	8	2.0%	ns	
		I	14	3.2%	2	4.4%	16	3.0%		
		II	36	8.2%	5	11%	41	8.0%		
		III	109	25%	9	20%	118	24%		
		IVa	251	57%	27	60%	278	57%		
		IVb	26	5.9%	2	4.4%	28	6.0%		
Treatment		IVc	3	0.68%	0	0%	3	1.0%	0.007	
		Induction chemotherapy and radiation	conventional	231	53%	3	7.0%	234		48%
			accelerated	72	16%	10	22%	82		17%
		Radiation and concomittant cisplatin	conventional	0	0%	0	0%	0		0%
			accelerated	0	0%	1	2.0%	1		0%
Brachytherapy boost		conventional	37	8.4%	23	51%	60	12%	ns	
		accelerated	99	23%	8	18%	107	22%		
Concomittant Cetuximab		Not administered	342	78%	36	80%	378	78%	ns	
		Administered	97	22%	9	20%	106	22%		
Smoking		Not administered	390	89%	40	89%	430	89%	ns	
		Administered	49	11%	5	11%	54	11%		
		Never	112	26%	14	31%	126	26%		
		Former (>15 years ago)	61	14%	6	13%	67	14%		
		Former (<15 years ago)	65	15%	11	24%	76	16%		
Survived 3 years after diagnosis		Current upon diagnosis	201	46%	14	31%	215	44%	ns	
		yes	323	74%	32	71%	355	73%		
		no	116	26%	13	29%	129	27%		